

ENGINEERING STANDARDS UPDATE

[Standards are serious business](#), but this newsletter isn't.

Topics this month:

- **Having an Issue with a Master Specification? Help is Here**
- **ASME versus NASME Piping**
- **Training & Qual**
- **LANL Standards Issued in May**
- **DOE Technical Standards Action**
- **When Good Conduct of Engineering Isn't Followed**

The LANL Engineering Standards: <http://engstandards.lanl.gov/>

HAVING AN ISSUE WITH A MASTER SPECIFICATION? HELP IS HERE

Until now, users with questions or suggestions related to LANL Master Specifications (LMS) contacted the Standards Discipline POC that owns the document by calling or writing. (Nearly every LMS has a link to that person in the introductory authors note; also, the LMS [webpage](#) also lists which discipline owns each LMS so users can look them up in the POC listing with each ESM chapter or the [consolidated listing](#) on the Stds homepage). Then, it was up to the POC to respond to and keep track of the change ideas. Strictly last-century technology.

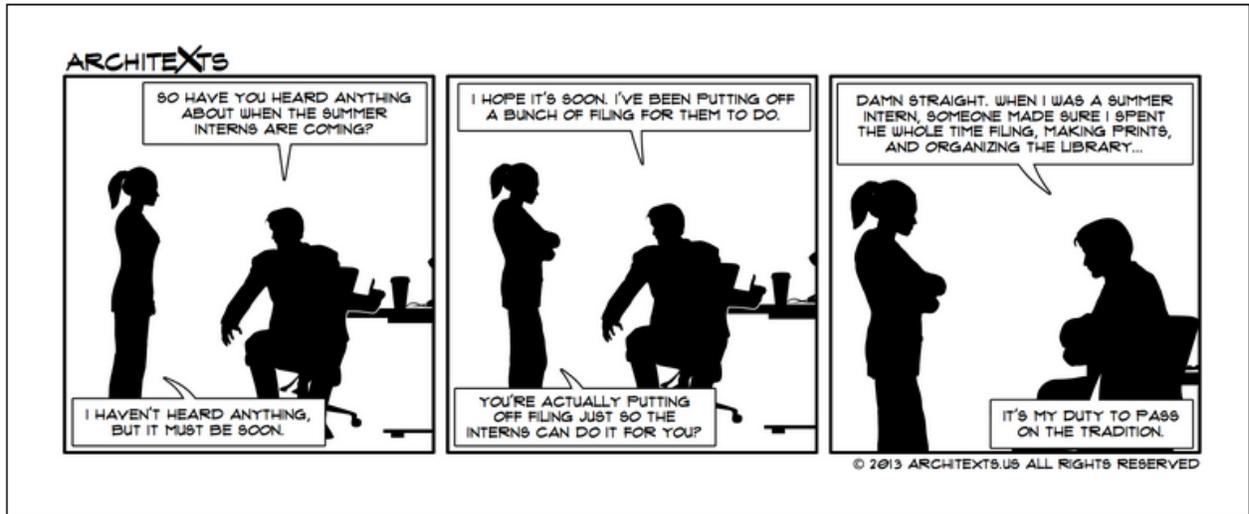
Calling or writing the POC for help is still alright, but we've just added another method for LANL insiders—using something called the World Wide Web. Yes, a slick, new SharePoint (S/P) request form is now available by a link above the index on the [LMS webpage](#). It's very easy to pick the LMS from the dropdown, enter your question or idea, and submit. The POC, myself, and you will immediately get notified and the issue is logged in the S/P library for tracking and disposition.

This tool is much like the log of CoE AP issues (link in the upper-right corner of the S/P-based APs webpage), but it automatically completes user info, employs dropdowns, and looks up the POC. Very 21st century. Thanks to creator Dave Moir.

And because it's that time of year:

NEW INTERNS

By **Architexts** on June 7th, 2013



ASME VERSUS NASME PIPING

ASME B31 piping codes are the gold standard for design and construction. Per ESM Chapter 17, LANL is required to follow B31.3 or B31.9 when the piping is “necessary for the function of the process or system for all pressure vessels, boilers, and air receivers” —so-called “supporting piping systems”. Such piping is governed by Chapter 17 Section ASME. But meeting ASME when it’s not required can be unnecessarily costly, difficult, or impossible. Because of that, Chapter 17 also has Section NASME—*New Non-ASME System Requirements*. When the entry criteria in NASME and its Attachments (e.g., NASME-1, NASME-2) are met, the design agency may utilize the applicable, approved equivalency evaluation approach in them and life is better.

Given the above, engineers developing design input documents like RCDs and DCFs are advised to use great care in invoking ASME B31 codes in a blanket manner unless they are certain that all piping must and will meet it. Where there is any doubt, a more prudent approach is to only invoke ESM Chapter 17 (or when it is known that Sections ASME and NASME will both be used, they could be mentioned as well)—then leave it to the design agency to describe their intentions regarding NASME and the various B31 options in their Pressure Safety Implementation Plan (PSIP, required by Ch 17) and on any piping and instrumentation diagrams (P&IDs; this is called indicating “code breaks”).

[A. Ben Swartz](#) is the POC for Ch. 17 and can answer any questions on the above.

TRAINING & QUAL

Electrical Standards – Thurs, Aug 23

Four-hour course 17998 covers the electrical engineering standards in Chapter 7 of the LANL Engineering Standards Manual and discusses mandatory requirements and good practices for those involved in electrical design. Strongly suggested for electrical designers, electrical engineers, electrical safety officers, and facility managers. AEs are also encouraged to attend. Taught by Electrical Standards POC Eric Stromberg from 7:30–11:30 am, at White Rock Training Center TA-00-1308 Rm 112.

Registering for UTrain Courses: Sign up via [UTrain](#). Search on course, assign to yourself, select and enroll. Disenroll if you have to bail. AEs can also register; use CryptoCard or contact Yolanda Trujillo at 665-5696 or yjtrujillo@lanl.gov with Z number.

Swagelok Courses (Non-LANL)

- **June 6 (tomorrow)** at the Holiday Inn in Los Alamos: 1-day [Swagelok Safe Installation Day of Training](#) will include an introduction to tube, pipe, and VCR® fittings as well as sessions on regulators, hoses, valve selection, and basic tube bending.
- **July 9-12** at our Phoenix, Arizona Training Center: 4-day [Hands-On Swagelok Essentials with Orbital Welding](#) will feature in depth, hands-on Tube Fitting and Tube Bending Essentials, Regulator Safety, and Orbital Welding Essentials.
- **July 31** at the Holiday Inn in Los Alamos: 1-day, in-depth and hands-on [Swagelok Essentials Class](#) with half of the day dedicated to Tube Fitting Essentials and the other half to Tube Bending Essentials.

For more info, go to the new LANL [Swagelok Resource Center](#).

LANL STANDARDS ISSUED IN MAY

Master Specifications STD-342-200	
03 3001R11 Reinforced Concrete	Clarification on when to specify/ not specify vapor barrier (p8); indication that pre-approved mix designs 5000-4N & -8E meet the ACI-318 requirements for “F3 concrete” (p13); replaced single-value admix quantities in “4N” & “8E” with ranges. (p14-15); clarification on when slab-on-grade should/shouldn’t be separated from vertical concrete (p21); addressed early pickup of cylinders (p25). Thanks to POC Glen Pappas.

Std Drawings & Details STD-342-400	
Ch.5 - ST-Z1052-1 Rev. 2 Single Wide Trailer Requirements for In-Situ Soil	Moved tabular data to new drawing ST-Z1052-3. Updated sheet to meet LANL ESM Ch. 5 Section II Rev. 10. Thanks to Ben Winter, POC Glen Pappas.
Ch.5 - ST-Z1052-3 Rev. 0 Tie-down quantities Considering Topographic Factor	Initial issue. Thanks to Ben Winter, POC Glen Pappas.

DOE TECHNICAL STANDARDS ACTION

STDs [postings](#) in the past month:

DOE-HDBK-1214-2014 Reaffirmed 2018 Conduct of Operations Assessment Field Handbook

For the Federal audience, these were cancelled:

- DOE-STD-1157-2002, Environmental Restoration Functional Area Qualification Standard
- DOE-STD-1166-2003, Deactivation and Decommissioning Functional Area Qualification Standard
- DOE-STD-1178-2004, Technical Program Manager Functional Area Qualification Standard

WHEN GOOD CONDUCT OF ENGINEERING ISN'T FOLLOWED

In the same issue of the Int'l Code Council's newsletter, two articles on hurricane laws in Florida—the second dripping in irony.

Florida Building Codes Thwarted Hurricane Damage, Report Shows

March 20|Insurance News Net

Florida ranked top in the nation for its building codes, according to a new report that cited newer construction better withstanding hurricane damage. The nation's biggest hurricane target unseated the previous top state, which had been Virginia, for the top ranking, according to the building-code survey by the Insurance Institute for Business and Home Safety. The only thing coming between Florida and a perfect score this year was the state's lack of continuing education requirements for building officials. "One of our messages is that we shouldn't roll back what we've got," said Julie Rochman, president of the institute, which is based in Tampa. "That's really important." [Read more.](#)

As Storms Get Stronger, Building Codes Are Getting Weaker

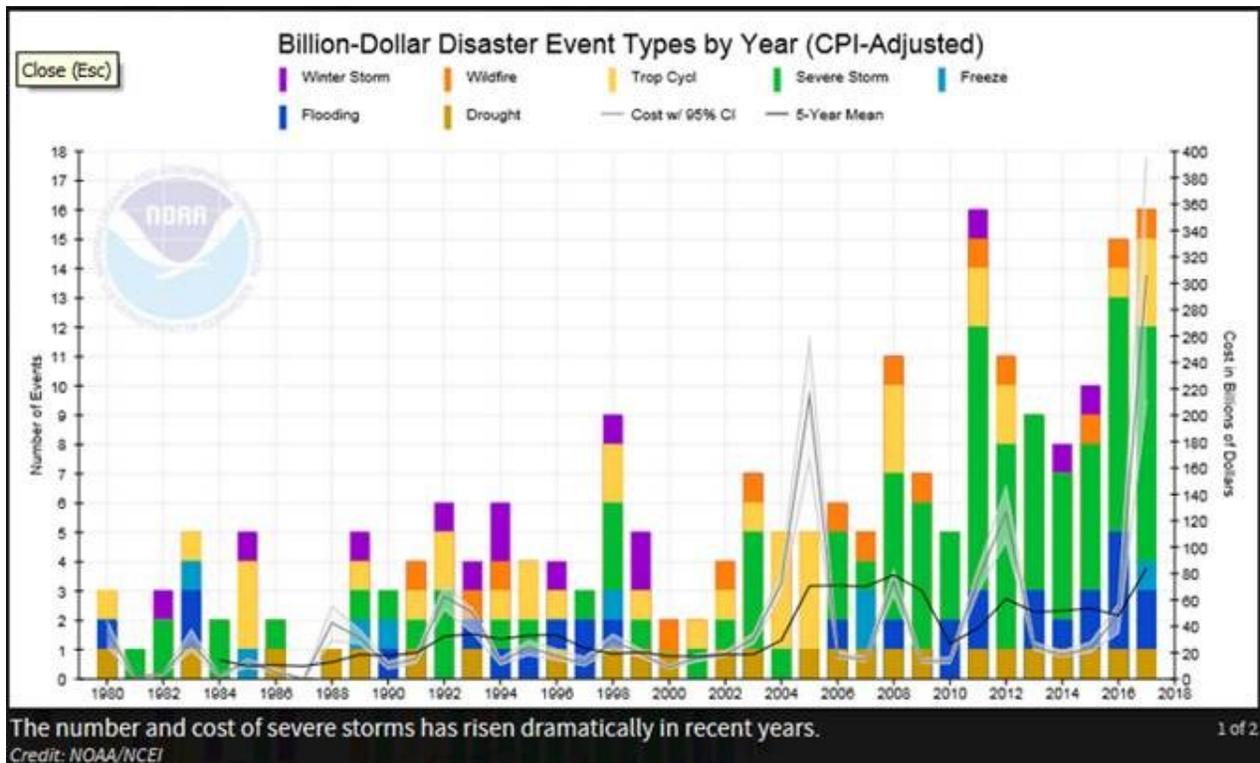
March 19|Bloomberg Politics

The showdown in the Florida statehouse last year had all the drama of a knock-down political brawl: Powerful industries clashing. Warnings of death and destruction. And a surprise last-minute vote, delivering a sweeping reform bill to the governor's desk. The battle wasn't about gun control, immigration or healthcare, but about making it easier to ignore national guidelines on building codes. To the surprise of the insurers, engineers and safety advocates who opposed the change, the home builders won, in a state that gets hit by more hurricanes than any other. [Read more.](#)

Here's one more article on hurricanes that came in today; I sense a theme here:

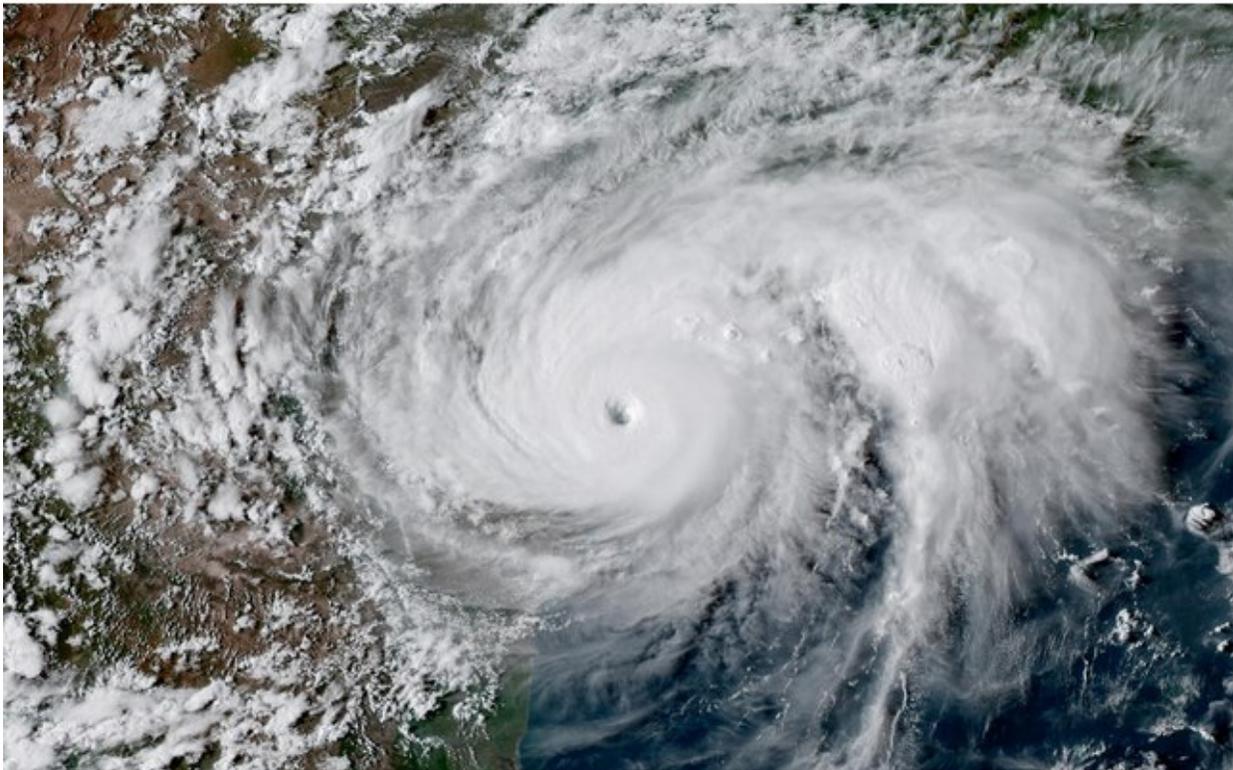
Before the Storm: Measuring and Predicting Hurricanes (NIST 6/5)

[Note: Fairly long article; for those short on time or attention span, its graphic (below) on increasing storm damage costs (hoax-caused?) was interesting to me. T]



June 05, 2018

By: [Scott Weaver](#)



Hurricane Harvey, seen here from the NOAA GOES-16 satellite on August 25, 2017, was the first Category 4 hurricane to make landfall along the Texas Coast since Carla in 1961. An average Atlantic hurricane season produces 12 named tropical storms, six of which become hurricanes and two of which become major hurricanes.

Credit: NOAA

The Atlantic hurricane season is now upon us, and the National Oceanic and Atmospheric Administration (NOAA) has just released its 2018 seasonal hurricane outlook, which calls for a slightly above average season. The potential range of activity indicates that we could expect 10 to 16 named storms with five to nine becoming hurricanes and one to four becoming major hurricanes. But remember, it only takes one bad storm to wreak havoc, or in the case of the 2017 hurricane season, three!

Wait a minute! Why am I reading about hurricanes and NOAA on a NIST blog? Let's back up for a moment and start at the beginning.

[Read More](#)

LAST MONTH'S UPDATE TOPICS

Miss an issue? The archive is at "[Monthly Update](#)" on the [Standards homepage](#). Last month's topics:

- **N3B**
- **Editing, Variance Processes Streamlined for Some Specs, etc.**
- **Civil Spec Variance New Approach**
- **Engineering Processes Changes**
- **LANL Standards Issued in April or So**
- **PM Procedure Changes**
- **DOE Technical Standards Action**
- **National Standards Action**
- **When Good Conduct of Engineering Isn't Followed**

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